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## Article

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## Review

# Evaluating the Effectiveness of Investment in Boosting South Africa's Economic Growth: A Comparative Analysis across Different Administrations

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**Abstract:** South Africa's economic growth has been slow since the 1980s due to inefficiencies in the manufacturing, mining and quarrying, ICT, electricity, gas, and water sectors. This article uses the theoretical framework and growth rates to identify key reasons for this slowdown. Key issues include inefficiencies within the gross fixed capital formation (GFCF) and inadequate infrastructure, primarily due to government behavior. This article used secondary data to perform the desktop analysis. To promote economic growth, the South African government and allied stakeholders should consider increasing investments in public infrastructure and financing research and development. This article argues that economic growth is driven by government expenditure, easy access to financing, and technological advancements. To promote economic growth, a comprehensive approach is needed, including tax breaks, loan guarantees, and pro-business legislation.

**Keywords:** economic growth; gross fixed capital formation; investment



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## 1. Introduction

South Africa has undergone a significant transformation since achieving democracy in 1994, but its economic growth has been stagnant (Rodrik 2008). In comparison to many people's expectations, the average growth rate of 3% during the first ten years after apartheid fell well short of what was thought to be required to enable a stable transition to democracy in South Africa (Du Plessis and Smit 2006). The early 2000s saw another period of strong growth, fueled by high commodity prices and global economic expansion (Fukunishi 2014). South Africa's economic growth has been a bumpy ride since 1980, marked by significant fluctuations and periods of both robust expansion and contraction (Ferendinos 2012). The early 1980s saw relatively strong growth, exceeding 4% annually, thanks to high gold prices and a global economic boom. However, this was followed by a sharp downturn in the mid-1980s due to external sanctions imposed against the apartheid regime, internal political instability, and rising inflation (Tryman and Jallow 1994). The 1990s brought renewed optimism with the transition to democracy and the implementation of economic reforms. Growth averaged around 3% annually, driven by increased investment and domestic demand. However, the gains were not evenly distributed, and unemployment and poverty remained high. Nonetheless, GDP growth reached a peak of 5.4% in 2007 (Kanbur and Noman 2021). This growth has not necessarily translated into improved well-being for the population, with challenges such as job quality and environmental sustainability persisting (Kanbur and Noman 2021; Jayne and Sanchez 2021). The region's transition from area expansion to productivity growth in agriculture is seen as a key factor in sustaining livelihood improvements (Jayne and Sanchez 2021). The increase in foreign direct investment (FDI) in Africa, including South Africa, has also contributed to economic growth (Blanas et al. 2019). However, the sustainability of this growth is a concern, with the relationship between savings and GDP per capita being a key factor (Klutse 2020).

However, [Maswana \(2009\)](#) asserts that the global financial crisis of 2008 hit South Africa hard, causing a recession and negative growth in 2009. The recovery from the crisis was slow and uneven. Growth remained sluggish in the 2010s, averaging around 1.5% annually ([Raputsoane 2018](#)). This was exacerbated by structural deficiencies, such as electricity load shedding and strained industrial relations ([Groepe 2015](#)). Despite some recovery in household spending, the economy continued to face challenges, including a hike in personal income taxes and high service costs ([Fourie 2015](#)). The persistently declining growth rate, falling below the 5.4% target, further underscored the need for more effective policy measures ([Kganyago 2015](#)). This was attributed to various factors, including political uncertainty, policy inconsistencies, and global economic headwinds ([Raputsoane 2018](#)). The impact of these factors is further exacerbated by structural challenges in the economy, such as the need for greater inclusivity and job creation ([Dessus et al. 2019](#)). In recent years, South Africa's economic growth has been subdued, hovering around 2%. The COVID-19 pandemic further exacerbated the challenges, causing a significant economic contraction in 2020 ([Ikwegbue et al. 2021](#)). While the economy has shown signs of recovery in 2021 and 2022, the outlook remains uncertain due to ongoing challenges such as high unemployment, inequality, and power shortages.

However, since the early 1980s, investment slowed due to the political and economic sanctions of the apartheid period ([Laverty 2007](#)). Nonetheless, the inability to shift investment toward these sectors has led to environments in which clientelism, patronage, and corruption have thrived ([Zalk 2016](#)). This was made even worse by a 'high-profit and low-investment' economy and post-1980s deindustrialization and a lack of black ownership in strategic sectors of the economy ([Zalk 2021](#)). These underlying themes, taken together, explain the investment trends in South Africa which have dominated the past four decades. However, South Africa's mining and quarrying sector has historically played a significant role in the national economy, with investment fluctuating over the years based on global market forces and domestic policy decisions ([Makoela 2021](#)).

Despite challenges like regulatory uncertainty and infrastructure constraints, the mining and quarrying sector in South Africa remains an attractive investment destination. Recent years have seen increased interest in renewable energy minerals, presenting exciting opportunities for the future ([Baker et al. 2014](#)). [Rodrik \(2008\)](#) asserts that the South African manufacturing landscape has undergone significant transformations since 1980. While investment trends fluctuated over the period, the general trajectory exhibits an upward curve, with notable peaks and turns reflecting broader economic and political contexts. From 1980 to 1994, investment was relatively stable, ranging from 2% to 4% of the GDP despite increasing political instability and international sanctions ([Fine 2018](#)).

Furthermore, the South African manufacturing sector has shown resilience and potential for growth, driven by factors such as government initiatives, currency depreciation, and increased investment ([Barnes et al. 2004](#)). However, it faces challenges including infrastructure constraints, a skills gap, and policy uncertainty ([Bhorat and Rooney 2017](#)). The sector's performance is influenced by a U-shaped relationship between the manufacturing share of the GDP and per capita GDP, exchange rate depreciation, good governance, and the size of the domestic market ([Mijiyawa 2017](#)). [Baker et al. \(2015\)](#) asserts that throughout the period of 1980 to 2022, investment in South Africa's electricity, gas, and water sector has undergone significant fluctuations, reflecting the evolving political and economic landscape.

However, investment growth slowed down in the late 2000s and early 2010s due to the global financial crisis and concerns about the government's management. Despite these challenges, investment picked up again in the mid-2010s due to the government's commitment to diversifying the energy mix and promoting renewable energy sources. Investment in information, computer, and telecommunications equipment (ICT) in South Africa has steadily increased over the past four decades, rising from 1.5% to 6.3% from 1980 to 2022. This growth is driven by factors such as the liberalization of the telecommunications sector, the rapid growth of the internet, and the increasing adoption of ICT by businesses and consumers.

The late 1990s and early 2000s saw a further period of strong growth, as businesses and consumers increasingly adopted ICT technologies (Gillwald et al. 2012). The dot-com boom in South Africa led to a surge in internet-based business investment, reaching 7.1% of total investment by 2008. However, the 2008 global financial crisis led to a decline, dropping to 4.9% by 2010. Since then, ICT investment has recovered somewhat but has not yet reached pre-crisis levels. Despite this decline, ICT investment remains a significant driver of economic growth in South Africa. This article uses secondary data from the Reserve Bank of South Africa, analyzing economic growth and gross fixed capital formation in four sectors from 1980 to 2022. This article unravels the complex interrelationship between gross fixed capital formation (GFCF) and economic growth in the context of South Africa with a special focus on three of the most critical sectors: manufacturing; mining and quarrying; and water, gas, and electricity. By investigating the relation of capital formation in manufacturing, mining and quarrying, and water, gas, and electricity with economic growth, this article tries to find major trends in investment and relate them to future economic policy. This analysis is relevant for South Africa as it attempts to establish a recovery path in the post-pandemic period while pursuing long-term, sustainable development. Firstly, it covers a critical gap in the direct assessment of the relationship between GFCF and economic growth in South Africa, which has noticeably been missing from the literature as a specific subject. Secondly, it is important in the wider scope of economic policies given that fostering investment in infrastructure and industrial capacities is a goal of the National Development Plan 2030. Finally, knowledge from this study will help solve the problems of socioeconomics, unemployment, poverty, and inequality in South Africa. The analysis of these relationships in this paper will therefore contribute to imperative investment policies and economic policies that will ensure sustainable development and economic resilience in the country.

### 1.1. Issues in Context

Ncanywa and Makhenyane (2016) and Meyer and Sanusi (2019) again answered in the affirmative the question concerning the relationship between gross fixed capital formation and economic growth, with Ncanywa and Makhenyane (2016) further underlining the role of investment activities in boosting the economy. Meyer and Sanusi (2019) also noted that investment had a positive long-term effect on employment. Ncanywa and Ralarala (2020) and Feddersen et al. (2017) explained the specific sectors and mechanisms through which capital formation impacts economic growth. Ncanywa and Ralarala (2020) identified manufacturing and technology as the major sectors to invest in, while Feddersen et al. (2017) pointed out the role of exports in encouraging capital formation and increasing economic growth. These findings thus establish the critical importance of focused investment strategies in these core sectors since they have the potential to improve the overall economic performance of South Africa.

This has a structural change with the economic growth in South Africa's manufacturing sector and implications for the general economy. Tregenna (2008) documented how the manufacturing share of the national output serves as an important direct demand stimulator for the services sector and the entire economy. However, as Meyer and McCamel (2017) indicates, in recent times, there has been a decline in the sector towards its relative contribution to the national GDP and employment. This decline results from stiff competition from Southeast Asia and human skills deficiency (Bhorat and Rooney 2017). Despite this, Pasara and Garidzirai (2020) emphasize the potential of gross capital formation to stimulate economic growth and employment, showing how specific investments in this area could salvage the situation.

The mining and quarrying sector in South Africa has faced a series of challenges over time: it has been home to fluctuating levels of investment, commodity price volatility, and regulatory uncertainty at different levels (Leon 2012; Moraka and Jansen van Rensburg 2015). These three conditions have fueled inconsistent contributions to economic growth, where periods of high commodity prices have led to peak investment cycles (Saunders

2008). South African firms have still exhibited their general resilience in such situations as they have a tradition of operating in adverse environments (Luiz and Ruplal 2013). Nevertheless, the downfall of the industry has been prescribed by the implementation of the divisive Mineral and Petroleum Resources Development Act 2002, which has sparked critical licensing delays and regulatory uncertainty (Leon 2012). Still, the activities that have been carried out by the government in order to drive transformation in the industry will not balance out the fact that this is a sector that has been consistently failing to attract investor trust, as well as the mentioned black economic empowerment (Moraka and Jansen van Rensburg 2015). The mining and quarrying sector continues to be a significant element of South Africa's GDP, and the economy that surrounds it is a global juggernaut. However, these opportunities also present challenges. Labor unrest, environmental concerns, and the need for modernization are the primary concerns (Syrett 2016). The environment is concerned about the generation of wastewater and sediments, among other factors, as a result of mining. This has resulted in the call for sustainable mining practices (SOME) (Manyuchi et al. 2019). The industry has been unable to make a significant contribution to the sustainability of development due to the dearth of technological and human resources (Broadhurst et al. 2014). These facilities are a source of resilience in a tourism sector that is otherwise highly vulnerable, as well as an entry point to a transition to the green economy. The wider tourism industry's electricity needs are primarily met by seawater desalination, which consumes both on- and off-grid electricity (Montmasson-Clair 2015).

The water, gas, and electricity industry forms a critical part of economic growth in South Africa but has its challenges in terms of investment and its infrastructure. For instance, Khonjelwayo and Nthakheni (2020) exemplify the role of regulation in the electricity distribution area that enables investments, placing emphasis on government intervention and capital from the private sector. Ilesanmi and Tewari (2017) and Ogujiuba and Mgometulu (2022) insist on the important aspects of energy consumption and measures of human capital investment in economic growth, where this requires more investment in social and economic infrastructure. Khobai et al. (2016) go further by emphasizing the causal relationship between electricity supply and economic growth, calling for measures that improve the supply, thus reducing power outages. Buraimoh et al. (2020) capture the transformations and restructuring in the electricity industry, with the dawn of independent power producers calling to signal the importance of deregulation and competition.

### 1.2. Conceptual Framework

The discussion on economic growth is a deep tapestry of varied theories and models, each offering a unique insight into the plausible mechanism behind prosperity. One such corner block is Solow's neoclassical growth theory, which serves as a fundamental scaffold for the dissection of the roots of economic expansion. Zhang (2018) brings to light the objective of the theory, which was to explain the interaction between economic growth and a complex set of factors, ranging from income distribution to public goods. To follow a different theoretical perspective, Nweke et al. (2017) expound that the Harrod–Domar model indicates the pivotal role of capital accumulation through investment in fostering economic advancement. The model points to the need for nations to shift their resources from consumption to capital production, with savings as its linchpin. It further gives a note of caution against imbalance, pointing out that either too much or too low GFCF might cause inflationary pressures or stagnation, respectively (Dumo et al. 2023). Standing in contrast to the neoclassical and Harrod–Domar paradigms, the endogenous growth theory, advocated by Romer (1990), disqualifies the idea of diminishing returns to capital accumulation. It argues that a country's investments in human capital and innovation as internal factors are the primary determinants of sustainable long-run growth. This view brings out the importance of GFCF in enhancing a country's productive capacity and in fostering the development of innovation. On the other hand, the Vicious Circle Theory gives a rather gloomy picture of how poor GFCF can perpetuate poverty by providing an automatic vicious cycle of low income, low savings, and limited investment (Nafziger 2006).



It brings out how targeted policies need to focus on saving, investment, and infrastructural development to be able to break the shackles of poverty. The nexus between gross fixed capital formation (GFCF) and economic growth, however, is multifaceted as well evidenced by various viewpoints. [Liening \(2013\)](#) emphasizes human capital development, while [Ayres \(1998\)](#) points out the significance of natural resources and technological innovation. Moreover, [Telnova \(2019\)](#) and [Panizza \(2017\)](#) support the idea of financial policy carried out by the government and emphasize the possible negative effect of an overgrown financial sector on the growth of the economy.

### *1.3. The Interplay between Gross Fixed Capital Formation in Manufacturing/Mining and Quarrying/Electricity, Gas, and Water*

Gross fixed capital formation (GFCF) is a critical indicator of economic health in the manufacturing sector as it quantifies the investment in machinery, buildings, and infrastructure that is utilized to improve productivity, innovate, and sustain a competitive edge ([Dovletmurzaeva 2023](#)). Significantly, inward FDI has been discovered to stimulate GFCF within manufacturing production ([Amighini et al. 2017](#)). In relation to financial systems, including contracts, markets, and intermediaries, the equally positive function is identified in the promotion of technological innovation and economic growth ([Demirgüç-Kunt et al. 2018](#)). The most recent pertinent development is the emerging concept of green finance, which serves to address the necessity of combating climate change and identifying new investment channels associated with sustainable manufacturing ([Debrah et al. 2023](#)). Significant determinants are supposed to be the performance of the GFCF in the mining and quarrying sector about potential output and capacity, with direct impacts on the availability of raw materials for other industries ([Saini et al. 2017](#)). On the contrary, very high risks in the sector are revealed because the capital formation by this sector is very vulnerable to a variation in commodity prices and international demand, and that leads to the extensive fluctuation in this rate ([Lkhagva et al. 2019](#)). Emphasis would underline the necessity of sustainable management and reinvestment in other sectors not to worsen the negative implications of mining booms ([Lkhagva et al. 2019](#)). The rationale on behalf of the essential need is derived from the fact that infrastructure investments are necessary to develop the mining industry, including in Australia ([Perks 2016](#)).

The UN has agreed that throughout the various stages of mining activities, several Sustainable Development Goals are affected; hence, there is potential leverage to those goals ([Kennedy et al. 2020](#)). The interrelation of this sector with other sectors is multilayered and deep, having a considerable bearing on economic stability and growth ([Pradhan et al. 2018](#)). Investment in electricity, gas, and water is key to the establishment of abundant and sustainable energy and water resources that are critical for industrial manufacturing. It is further complicated by the interconnectedness of electricity and gas, offering some possibility of facing these challenges and risks ([Peng and Poudineh 2016](#); [Skaggs et al. 2012](#)). Interdependencies among manufacturing, mining, and utility sectors are critical for growth and development on a sustained basis ([Peng and Poudineh 2016](#)). This is more so in the electricity and gas sectors that require a comprehensive framework to conceptualize their nature of interdependence ([Hibbard and Schatzki 2012](#)).

In Europe, the electricity generation market confirms the necessity to consider market interdependencies in energy system modeling ([Lienert and Lochner 2012](#)). The United States and Canadian experiences reinforce the previous argument since the energy industries of the two countries are highly interdependent, with substantial integration and cooperation ([McKinney 2008](#)). These works highlight the critical importance of ensuring balanced and sustained GFCF in all sectors to guarantee a steady supply of raw materials and utilities for manufacturing and mining activities. Therefore, a dynamic interrelationship in growth personalizes the GFCF of the manufacturing and mining and quarrying sectors along with the electricity, gas, and water sectors. Such cross-sectoral investment, which is balanced and strategic, contributes immensely to sustained growth in the economy, raises productivity, and translates into enhanced competitive advantages in a global

perspective. This is how capital formation must be geared in conjunction with technological developments and market exigencies integrating a resilient and robust economic infrastructure supporting durable prosperity.

## 2. Related Literature

### 2.1. *The Influence of Gross Fixed Capital Formation and ICT on Economic Growth*

Often, researchers find investment in ICT to be the biggest contributor to economic growth for most countries; however, [Yousefi \(2011\)](#), using time-series cross-country data of a total of 62 countries suggests otherwise, with the results of the study showing that the level of investment in ICT for countries with different incomes is different. The study further revealed that for high- and upper-middle-income groups, investment in ICT influxes economic growth, while it fails in lower-middle-income countries. The relationship between ICT and economic growth is not always mixed; in fact, some studies have found a single relationship between the two. [Aghaei and Rezagholizadeh's \(2017\)](#) study, for example, found that ICT significantly affects economic growth in OIC countries by applying growth model framework dynamics and the static panel data approach. According to a study by [Okogun et al. \(2012\)](#), utilizing autoregressive distributed lag (ARDL) for the country of Nigeria, investments in ICT have a considerable impact on economic growth. The study also comes to the conclusion that strong returns on ICT investments lead to economic growth.

[Matlou \(2019\)](#) used the ARDL model to study the association between ICT infrastructure investment and economic growth in South Africa from 1992 to 2013. The variables were shown to be co-integrated, demonstrating a long-term positive link between ICT investments and GDP. [Sookha \(2018\)](#) evaluated the influence of mobile communications infrastructure investment on South African economic growth. The autoregressive distributed lags (ARDL) methodology was used in this investigation. There was no cointegration between the variables, and thus no long-run relationship. [Naym and Hossain \(2016\)](#) conducted a study using linear regression analysis for the country of Bangladesh and found that there is a positive but not statistically significant correlation between ICT investment and economic growth. The study also suggests that the smaller share of ICT investment in the GDP and the shorter time span available for the country than what is required for conducting a rigorous statistical analysis may be the reason for the lack of significance of the results.

### 2.2. *Influence of Gross Fixed Capital Formation and Manufacturing on Economic Growth*

Economic scholars have long debated the relationship between manufacturing investment and economic growth. Manufacturing has proven to have a positive impact on economic growth, but the link is complex and depends on several variables, including environmental concerns, the unique circumstances of each nation, and technology advancements. The literature on the relationship between the variables is described below.

According to a study conducted by [Meyer and Sanusi \(2019\)](#), manufacturing investment contributes positively to economic growth in the long term. This conclusion is based on research utilizing the VAR model that looked at how sectoral investment and government spending affected South Africa's economic growth during the quarter of 1995–2016. [Gachunga \(2019\)](#) argues that FDI (foreign direct investment) in the infrastructure sector has a positive and significant impact on the economic growth of Kenya, while the manufacturing and agriculture sectors have had a positive insignificant effect. The argument spans from the OLS results tested in the study. Subsequently, [Kolisi \(2021\)](#) ascertained the long-term correlation between foreign direct investment in the manufacturing sector and economic growth in South Africa from 2006 to 2018. The autoregressive distributed lag model was used in empirical research to look at the long-term relationship between the variables. The findings imply that foreign direct investment in manufacturing has a long-term detrimental effect on economic growth. Furthermore, [Opoku et al. \(2019\)](#) studied the influence of FDI on African economic growth using panel data from 38 African nations from 1960 to 2014. The system's generalized method of moments (GMM) results revealed

that while FDI positively and unconditionally stimulates economic growth, its growth-enhancing effect is fictitious when conditional sectoral effects are considered. According to the channels of manifestation, the pass-through impact of FDI is only considerable for the agriculture and service sectors and, for the most part, negative, albeit insignificantly, for the manufacturing sector.

### *2.3. Influence of Gross Fixed Capital Formation and Mining and Quarrying on Economic Growth*

[Ennin and Wiafe \(2023\)](#) and [Gochero and Boopen \(2020\)](#) observed that foreign direct investment (FDI) in the mining industry could result in positive immediate impacts on economic growth. In spite of this, Ennin also admitted the possibility of future barriers. [Bucaj \(2018\)](#) echoed similar discoveries, accentuating the indispensability of persistent and increased FDI provisions in order to maximize its benefits. ([Gyeke-Dako et al. 2015](#)) highlighted the importance of stable financial environment in realizing the beneficial role of FDI in stimulating economic growth. Still, these studies underscore how foreign direct investment through mining can pull a country out of poverty while it underscores good governance and favorable regulation as important issues to consider. Additionally, [Rahimov \(2013\)](#) investigated the impact of foreign direct investment (FDI) on the economic growth of a selection of host countries between 1994 and 2011. The study showed that FDI has a favorable impact on economic growth using aggregate-level FDI data for an assortment of five developing nations. Next, sector-specific statistics were used to determine whether every sector contributes positively to growth. It was discovered that the sectors' outcomes differ. The manufacturing and mining industries appeared to benefit from the findings, whilst the trade and financial intermediation sectors appeared to have a detrimental impact on economic growth.

### *2.4. Influence of Gross Fixed Capital Formation and Electricity, Gas, and Water on Economic Growth*

[Ayub et al. \(2021\)](#) and [Khaliq and Noy \(2007\)](#) conducted studies on the impact of foreign direct investment (FDI) on economic growth. [Ayub et al. \(2021\)](#) found that long-term economic growth in Pakistan can be boosted by investments in infrastructure such as roads, railways, gas projects, telecommunication, water, and power projects. [Khaliq and Noy \(2007\)](#) found that FDI contributes positively to economic growth, but the composition of FDI matters when analyzing diverse FDI inflows across sectors. Only a small number of sectors show positive FDI inflows, and one sector even has a strong negative impact.

[Latief and Lefen \(2019\)](#), and others conducted an empirical analysis on Pakistan's power and energy sector, focusing on the relationship between foreign direct investment (FDI), energy consumption, and economic growth from 1990 to 2017. The study found that Pakistan's power and energy sector received more FDI recently, and patterns in energy production and consumption showed significant differences from prior years. The findings support a short-run, positive, bidirectional causal link between energy use and economic growth. Javid's study examined the relationship between infrastructure investment and economic growth in Pakistan from 1972 to 2015, comparing public and private sector investments. The study found that investments in public infrastructure often have a greater effect on economic growth than investments in private infrastructure.

A heterogeneous view is provided by the literature on the effect of GFCF on economic growth. In the long run, GFCF in manufacturing generally increases the economic growth rate, although there are studies suggesting that such an effect might be long term. GFCF in mining and quarrying constantly reveals a positive impact on economic growth. Similarly, GFCF in the water, gas, and electricity sectors tends to positively affect the economic growth in the long run, while negative results are found in some studies. In turn, according to the results of these studies, there is this divergence, which means there is complexity and sectoral specificity in the process of relations in items of capital formation and economic growth, and the effect of capital formation varies in other industrial contexts.



### 3. Economic Growth and GFCF in South Africa

Table 1 presents the growth rates of GFCF in the three sectors. From 1980 to 1985, in the presence of the apartheid era, the economic growth of the country South Africa experienced slow growth as well as major declines. The biggest decline was in 1983, which saw a decrease from 4 to 1%. During that period, the country moved from slow growth to no growth. The country's economic growth did not improve during the next period (1985–1990), which was still in the apartheid era. There were still significant declines, with 1985 recording the highest decline of 3.4%. In 1985 and 1986, economic growth was hampered by ZAR 15.5 billion in politically induced capital outflows (SARB 1987). There was a trace of growth in 1988, which was 2%. There was no evidence of growth in the four years preceding the end of apartheid. In March 1989, the South African economy began a recession, which worsened in 1992 before leveling off in the first half of 1993 (South African Reserve Bank 1993).

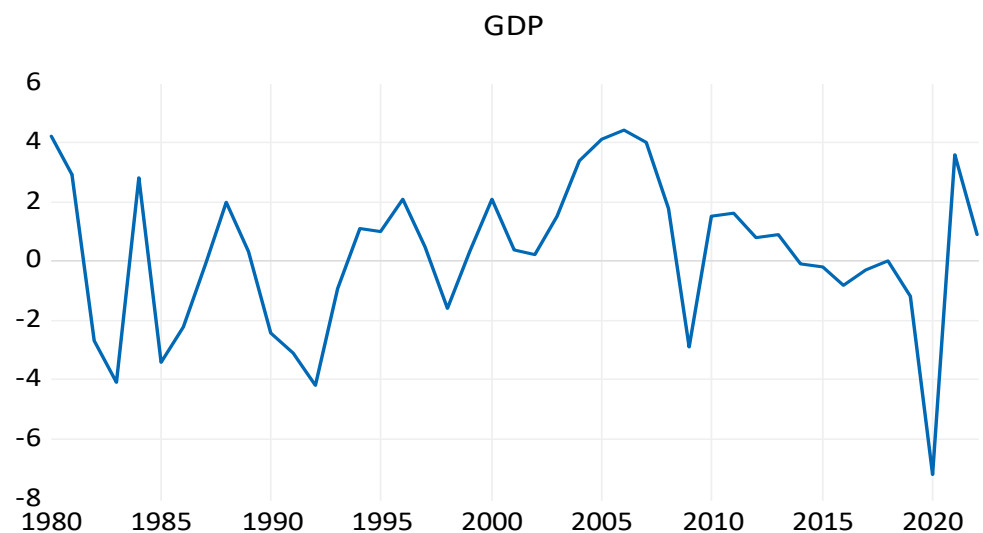
**Table 1.** Growth rates.

Date	GDP	GFCFMQ	GFCFM	GFCFEGW
1980	4.2	26.2	34.5	1.6
1981	2.9	5.5	−3.0	4.5
1982	−2.7	−5.9	−9.8	14.5
1983	−4.1	−9.3	−2.9	7.9
1984	2.8	3.6	−13.3	11.9
1985	−3.4	7.5	−26.6	−6.3
1986	−2.2	7.8	−24.7	−37.3
1987	−0.1	−1.2	−11.9	−9.5
1988	2.0	9.3	42.8	−14.3
1989	0.3	3.2	35.5	2.5
1990	−2.4	−6.2	13.8	−5.1
1991	−3.1	−6.8	−11.7	−20.9
1992	−4.2	−18.7	−6.0	0.2
1993	−0.9	−24.9	3.9	−8.2
1994	1.1	18.2	9.2	13.6
1995	1.0	4.2	20.6	20.4
1996	2.1	1.6	6.6	13.3
1997	0.5	12.7	3.1	−3.5
1998	−1.6	7.6	−2.7	−24.0
1999	0.3	−4.4	−0.1	−18.5
2000	2.1	11.7	1.2	−17.4
2001	0.4	8.0	6.1	−2.2
2002	0.2	13.6	−3.0	14.4
2003	1.5	5.0	3.6	33.2
2004	3.4	−19.2	17.4	16.2
2005	4.1	−11.6	9.7	10.8
2006	4.4	48.7	12.8	14.3
2007	4.0	28.0	6.4	37.5

Table 1. Cont.

Date	GDP	GFCFMQ	GFCFM	GFCFEGW
2008	1.8	25.6	7.6	48.4
2009	−2.9	5.8	−30.4	37.7
2010	1.5	−3.7	6.6	−1.6
2011	1.6	−3.1	27.9	3.8
2012	0.8	−1.8	−5.2	10.9
2013	0.9	11.7	9.5	25.3
2014	−0.1	−5.0	−5.2	−12.7
2015	−0.2	−28.3	1.3	6.9
2016	−0.8	−22.0	1.8	−6.5
2017	−0.3	28.1	1.4	−12.8
2018	0.0	20.6	4.2	−23.9
2019	−1.2	8.3	5.4	−0.6
2020	−7.2	−14.8	−17.7	−24.7
2021	3.6	−6.4	−7.5	−2.5
2022	0.9	8.1	8.5	−4.5

Source: authors' computation using Excel.



GDP trajectory [1980–2020]. Source: authors' computation using EViews 12.

In the early years after apartheid, there was still the experience of inconsistency with the growth in the economy. Economic growth continued at a slow rate and declined at high rates; the biggest decline was 1.6% in 1998. At that time, Asian financial turmoil had a negative impact on the South African economy. In 2004, the country's economic growth rose by 3.4, which was the first big rise recorded since the post-apartheid era. The national treasury (2004) reports that the growth occurred due to the rising production and appreciation and reduction in inflation and interest rates. The country expanded between 2004 and 2008. On a global scale, this period was typified by vigorous bull markets and soaring commodity prices. The worldwide economic crisis of 2008–2009 caused a 2.9% reduction in GDP growth in 2009 (STATSSA 2016). Economic growth continued to be modest from 2010 to 2013. It then fell by 0.1% in 2014.

Gross Fixed Capital Formation: Mining and Quarrying and Economic Growth: Nonetheless, the South African economy experienced a consistent decline in growth from 2014

to 2017, with a slight increase in 2018 (Kganyago 2015). The onset of the COVID-19 pandemic in 2020 further exacerbated the economic crisis, leading to a significant 7.2% reduction in economic growth compared to 1980. The pandemic also had a significant impact on the services sector, with the agricultural and industrial sectors showing more resilience (Anyadike and Mgbomene 2023). Recovery from the pandemic has been rapid but unbalanced, with the need for aggressive intervention policies to accelerate recovery (Van Seventer et al. 2021).

**Gross Fixed Capital Formation: Manufacturing and Economic Growth:** It has constantly been debated that GFCF and economic growth go hand in hand. During the 1980s, 1980s, and 1980s, the country's economy had a rise in GFCF, but not in all situations did economic growth happen. In 1985, a 7.5% increase in the economy fueled a decrease of 3.5%. The rise and decrease in the economy were seen from 1985 to 1986. A relationship between a decline in GFCF and a reduction in the economy was experienced from 1987 to 1990. Also, a rise in GFCF in 1988 and 1989 led to the growth of the country's economy. A decline in GFCF rung from 1990 to 1993. From 1999 to 2004, a decline in GFCF engendered economic growth. The growth in GFCF continued to decline the country's economic growth in subsequent periods. The economy and GFCF growth were almost static in 2018.

Between 1980 and 1985, there was a significant increase in gross fixed capital formation and manufacturing, which led to economic growth. However, from 1981 to 1984, there was a decrease in manufacturing, which led to an increase in economic growth. From 1985 to 1987, there was a decline in manufacturing, while economic growth decreased. From 1988 to 1989, there was an increase in manufacturing, which influenced economic growth. From 1990 to 1993, there was a decline in manufacturing, followed by a positive relationship between the two. From 1994 to 1997, there was a positive relationship between manufacturing and economic growth. From 1998 to 2002, there was a decrease in manufacturing, followed by an increase in manufacturing. From 2015 to 2017, there was a decline in growth associated with an increase in manufacturing. In 2018, there was an increase in manufacturing, while economic growth remained stationary.

#### *Gross Fixed Capital Formation: Electricity, Gas, and Water and Economic Growth*

From 1980 to 1985, the growth of gross fixed capital formation in electricity, gas, and water led to varying results in the GDP. In periods with lower growth rates, such as in 1980 and 1981, the GDP rose at 4% and 3%, while in subsequent years, it rose at higher rates, resulting in GDP declines. From 1985 to 1987 and in 1990, the GDP declined in association with a decrease in these formations. In 1988 and 1989, the GDP rose but with different outputs. From 1990 to 1993, the GDP declined consistently with different outputs. In 1992, a negative GDP was associated with positive gross fixed capital formation, while in the 1994–1996 and 2002–2004 periods, the GDP increased with increased formation. In 1997 and the 1999–2001 period, the GDP decreased, leading to increased formation. From 2004 to 2008 and from 2011 to 2013, the GDP increased with increased formation. In 2009, the GDP declined with an increase in formation, and in 2010, the GDP increased with a decline in formation. In 2014, the GDP decreased with a decrease in formation. In 2015, the GDP increased with a positive formation. From 2016 to 2017 and from 2019 to 2020, the GDP declined with declines in formation. In 2018, when the GDP was stationary, the GDP was negative. From 2021 to 2022, the GDP increased with declines in formation. From the research conducted on the relationship between gross fixed capital formation and the GDP in South Africa from 1980 to 2022, varied results were obtained. Pasara and Garidzirai (2020) observed a positive long-term relationship between the two, while Bhoola and Kollamparambil (2011) ascribed a significant reduction in output growth volatility towards improved macroeconomic policy, including monetary policy. Hodge (2006) noted a negative effect of inflation on growth, and Aron and Muellbauer (2002) pointed out that growth is constrained by high real interest rates. Overall, these various studies seem to imply that gross fixed capital formation can stimulate GDP growth but is influenced by macroeconomic policy, inflation, and interest rates.

#### 4. Policy Thrust [Pre- and Post-Apartheid]

The political and economic climate of South Africa has changed over time, and this has been reflected in the major changes in the different administrations' economic policies.

The manufacturing trends were double-edged in relation to economic growth. For the period between 1980 and 1985, increased manufacturing propelled economic growth. For the period between 1981 and 1984, despite the drop in manufacturing, the country registered an increase in economic growth. In the period between 1985 and 1987, negative manufacturing and economic growth were seen. A positive relationship is depicted for the period between 1988 and 1989, where the hikes in manufacturing propelled economic growth. Between 1990 and 1993, the two recorded a decline, leading to economic growth that was sustained between 1994 and 1997. In the period between 1998 and 2002, the two continued to post a fluctuation in the growth margins. In the 2015–2017 period, the two posted a decline in economic growth despite increased manufacturing and were stuck in 2018.

The gross fixed capital formation caused growths in electricity, gas, and water from 1980 to 1985. This led to different effects on the GDP. The low growth rates, which were achieved in 1980 and 1981, are shown to be concurrent with GDP increases of 4% and 3%, which were achieved then. However, this positive growth did not last long, as the subsequent years showed higher growth rates corresponding to GDP drops. The graph shows that from 1985 to 1987, together with 1990, the GDP declined with reduced formation. In the 1988–1989 period, the GDP realized growth, while from 1990 to 1993, there was a continuous GDP drop. The year 1992 realized a negative GDP even when there was a positive formation. Real GDP plus formation increased in the 1994–1996 period just as in the 2002–2004 period, but the 1997 and 1999–2001 GDP showed a decline, leading to subsequent growth. GDP plus increased from 2004 to 2008 and in the 2011–2013 period. However, 2009 showed a drop in the GDP even when the collection was increasing, while 2010 was shown to have experienced growth, but there was a drop in formation. In 2014, the GDP plus formation was shown to depict a decline. In 2015, the GDP increased just in the same period that a positive formation was recorded. In the 2016–2017 and 2019–2020 periods, both the GDP and formation declined, while in 2018, the GDP remained all but was negative. In 2021 and in 2022, the GDP increased but with a failing rate in formation.

#### *Policy Implications [Different Time Periods]*

Pieter Willem Botha (1978–1989)

Protectionism and government intervention dominated Botha's economic policy. He put in place a system of tariffs, subsidies, and capital controls to shield South African businesses from overseas competition. Additionally, he nationalized important sectors like transportation and electricity. The goals of these measures were to lessen the dependency on imports from outside and encourage economic growth. However, they also resulted in inefficiencies and inhibited economic expansion. South African GFCF data from the 1980s is a mixed bag, suggesting that the relation between GFCF in mining and quarrying with economic growth was not always positive. From this, it would appear that it is not always sufficient to place faith in a boost in GFCF in mining as a singular means of economic expansion. The railroad provides a more critical example than mining because of the contrasting results. The data highlight the importance of considering other factors alongside GFCF. For instance, the decline in manufacturing GFCF from 1981 to 1984, even though it led to economic growth, suggests at least some change in the landscape of the economy. Similarly, the different results in GDP growth noticed with periods of increase in GFCF in electricity, gas, and water call for the accounting of general economic conditions. Policymakers in South Africa should therefore seek growth outside mining GFCF strategies. Most likely, more consistent and sustainable growth will come from a holistic approach that factors in such issues as sector performance and overall economic health.

#### Frederik Willem de Klerk (1989–1994)

De Klerk's economic policies were more market-oriented than Botha's. He began to abolish the apartheid system's economic restraints and promoted international investment. He also introduced a variety of policies to boost economic growth, such as tax cuts and deregulation. These initiatives served to lay the groundwork for South Africa's economic prosperity in the post-apartheid era. The findings show a link between gross fixed capital formation (GFCF), economic growth, and specific sectors like mining and manufacturing in South Africa in the periods cited, whereby the increases in GFCF in mining and quarrying in 1988 and 1989 played a role in economic growth. This means that investment in these kinds of sectors is important in stimulating economic growth. Therefore, policy measures that would stimulate investment or accumulation in the mining and quarrying sector would be necessary. However, movements in GFCF from 1990 to 1993, more so in the manufacturing sector, pointed to the inverse. Since manufacturing has actually been the historical driver of the economy in South Africa, any such reduction would raise some eyebrows, signifying a need to promote more conducive policies to reverse such changes. The GDP fluctuations related to the changes in GFCF between years note the factors that make the relationship sensitive to the investment pattern. This means that the increases in GFCF led to the rise in the GDP based on the years' marks. In conclusion, keeping in mind this sensitivity to investment patterns, the results show that maintaining an enabling environment for investment or accumulation is paramount among a number of sectors. Policies need to strive to stimulate investment or accumulation, not only within the mentioned critical sectors of mining and manufacturing, but also in addressing barriers and difficulties that deter investment or accumulation. Additionally, towards the effort to diversify the economy and reduce its dependence on any single sector, opportunities to enhance resiliency to economic fluctuations could be improved.

#### Nelson Mandela (1994–1999)

Mandela's economic policies were centered on fostering social justice and decreasing poverty. He developed a number of social welfare programs, including the Reconstruction and Development Programme (RDP), which intended to offer basic services to the underprivileged. He also promoted black economic empowerment (BEE) measures. These programs aided in the improvement of many South Africans' lives, but they also contributed to the country's mounting fiscal deficit. The results indicate the nuanced relationship that gross fixed capital formation (GFCF) in different sectors can have with economic growth in South Africa. Specifically, in the instance from 1999 to 2004, where GFCF reduced in the mining and quarrying sectors, simultaneously, economic growth increased. This suggests that in the period between 1999 and 2004, other variables upholding economic growth were perhaps more influential in driving economic growth and compensated for the reduced investment in mining and quarrying. On the contrary, a positive relationship was established between GFCF in manufacturing and the economic growth rate from 1994 to 1997. This indicates that in this particular period, the economy benefited greatly as a result of fast investment in the manufacturing industry because policies to enhance manufacturing industries helped a lot in achieving economic growth.

Interestingly, when the GDP was low, there was a negative correlation between the GDP and GFCF in the water, gas, and electricity sectors, which indicated a potential counterintuitive relation. However, capital formation in the water, gas, and electricity sectors increased with a growth in the GDP. This emphasizes the complex interplay involved in the investment within infrastructure-related sectors and overall economic performance, suggesting that targeted investment in these areas may lead to positive outcomes during economic expansion periods. On the whole, these results further show that there is a necessity for the adoption of a specific policy that should take into account the disparate dynamics of different sectors and their growth on the economy. One would like to see policies supporting investment showing positive relations with economic growth and addressing potential bottlenecks or problems that might hinder investment in other sectors.



In addition, strategies that may boost diversification and resilience across various industries could help in the mitigation process of the adverse effect of the fluctuations in certain key sectors on the general performance of the economy.

Thabo Mbeki (1999–2008)

Mbeki's economic policy emphasized economic growth and development. He introduced a variety of reforms to increase the economy's efficiency, including privatization and deregulation. He was also concerned with the development of South Africa's infrastructure, including roads, airports, and ports. These policies aided economic growth in the early 2000s, but they were also chastised for failing to address poverty and inequality.

The variable trends in GFCF in different sectors of the South African economy within the period of 1997 to 2013 are subject to a number of important policy recommendations. The drop in GFCF in the mining and quarrying sector between 1999 and 2004 and the simultaneous economic growth posted a policy implementation that proved that the economy, as a whole, was resilient to such a scenario, though there was a decline in investment in the mining and quarrying sector. However, the reasons behind this fall have to be studied, along with its investment sustainability, duration, and productivity in the long run, detrimentally affecting the mining industry. More importantly, the fluctuating pattern in manufacturing GFCF—with a decrease followed by an increase from 1998 to 2002—highlights the importance of policies aimed at stabilizing investments in the manufacturing sector. This may include structural policy dealing with structural challenges, competitiveness enhancement, and policies that stimulate innovation for sustainable growth and job creation. Thirdly, an inverse relationship between the water, gas, and electricity sectors' GFCF and fluctuations in the GDP in those periods reflects the still vital role of infrastructure investment in driving economic performance. Policymakers may be better placed to prioritize infrastructure development and avail adequate investment to enhance supportive sustainable economic growth and improve service delivery and productivity across these essential sectors. Additionally, a positive relationship that exists between an increase in GFCF and GDP growth in eccentric periods, such as in the 2004–2008 or 2011–2013 periods, raises the need for the creation of an enabling environment for investment against various sectors. This may be achieved through policies that reduce regulatory barriers and increase access to finance, increase investor confidence, and ensure a stable microeconomic environment in order to attract domestic and foreign investment. Lastly, the 2009 and 2010 variations in the GDP, where there was growth despite reduced GFCF and vice versa, just reflect that there are other important macro factors at play when analyzing economic performance. The policymakers may thus be well placed to undertake a holistic overview that includes an array of indicators and thereafter take the most pragmatic policy responses to offset the adverse effects and foster sustainable growth and development. In summary, these results speak to the need for policymakers to craft specific policy interventions to initiate sector-specific reforms and spur investment in order to underpin macroeconomic stability for long-term growth and development in South Africa.

Jacob Zuma (2009–2018)

Zuma's economic policies emphasized state intervention and populism. He enacted policies that aided his political allies, such as nationalizing mines and giving government contracts. In addition, he expanded government spending on social welfare programs. These policies aided in the spread of corruption and the slowing of economic progress.

It is therefore evident that the economic growth of South Africa with respect to GFCF has many interactions. The plunge in GFCF in the mining and farm sectors has been a primary driver of South Africa's economic slowdown and subsequent stagnation. The trend indicates that investment in the two prehistoric core sectors of South Africa needs a rethinking of strategies. The decline in investment likely indicates the depletion of accessible resources or inefficiency that can be corrected through recalibrating and updating the sector with modern technologies and knowledge. The relatively static GFCF and economy in 2018 also show that a mono-investment in one sector should be replaced

with a strong policy to attract investment in diversified sectors that are in the growth stage, including those promising future potentials. Similarly, growth in manufacturing in 2018 did not influence the country's surge in economic growth. Although the rise of manufacturing industries is welcome, on a large scale, the manufacturing sector is not the sole savior of economic growth.

Thus, GFCF and the GDP have not followed predictable or stable patterns within the utilities—namely, water, gas, and electricity. In 2009, GFCF surged as the GDP dropped, yet in 2010, GFCF similarly plunged, and the GDP rose. The relationship between the two factors is therefore founded on non-collapsed interrelations, which depend on other factors such as external economic factors and point to internal efficiencies that are pivotal to the GDP as opposed to capital investments. Policymakers should thus consider strategies that enhance the efficiency and effectiveness of existing infrastructure and utilities alongside encouraging new investments. This may imply any reform in regulations that eradicate operational bottlenecks or any substantial incentive directed towards the private sector in this regard. In such periods, like the decline in the GDP and GFCF at the same time in the 2016–2017 and 2019–2020 periods, critical investment policies will act as buffers. Infallibly, during periods of economic decline, public investment could act strategically as a stabilizer mitigating the dripping impacts on the GDP. Such investments are to be strategically targeted at high-multiplier projects, stimulating demand and driving broader-based economic recovery. The static nature of the GDP in 2018, even when GFCF kept falling for some quarters, further shows that other policies targeting improvement in the general economic climate, including business confidence, as well as an effective reduction in structural blocks against growth, are equally necessary. Overall, the findings suggest that South African economic policy should focus on the diversification of investment, efficiency improvement in key sectors, and counter-cyclical investment policies. Only then will it help to alleviate the country from risky economic upturns. In short, with these measures, a more resilient and dynamic South African economy will, of course, be capable of sustained growth irrespective of the rises and falls in the traditional sectors such as mining and utilities.

Cyril Ramaphosa (Since 2018)

Ramaphosa's economic policies aim to restore investor confidence and boost economic growth in South Africa. He has implemented changes to curb corruption, increase government efficiency, and encourage international investment. However, these measures have been criticized for failing to address poverty and inequality. The presidents' policies have significantly impacted the country's economic development, with de Klerk and Mbeki's policies being more effective.

In 2018, South Africa's economy and gross fixed capital formation (GFCF) showed low growth, with manufacturing not showing significant improvement. However, between 2021 and 2022, GDP growth increased with declines in capital formation. Policy implications include boosting investment in mining and quarrying through regulatory dispensation, fiscal incentives, and public–private partnerships. Manufacturing outpaced the economy, and industrial policy may need enhancement to increase productivity, spur innovation, and improve access to domestic and international markets. Investment in water and gas and electricity is crucial for infrastructure development, fiscal spending, and related issues.

The decline in capital formation is a critical determinant of economic activities across various sectors. Policies that enhance capital formation must be balanced and diversified across relevant sectors, encouraging sectors like renewable energy, technology, and advanced manufacturing. Encouraging renewable energy, technology, and advanced manufacturing is key, while traditional sectors like mining and utilities are not neglected. South Africa's economic policy should create a conducive environment for investment, aid industrial growth, and ensure robust infrastructure to support sustained economic growth.

## 5. Summary

From the 1980s to the early 2020s, the South African economy experienced significant fluctuations. The most significant decline occurred in 1983 with a 4.1% decrease. The economy transitioned from a state of sluggish growth to one of near stagnation. The South African economy was in a state of decline from 1985 to 1990 due to apartheid. In 1985, the economy experienced an extraordinary 3.4% contraction, which was further exacerbated by ZAR 15.5 billion in politically induced capital outflows (SARB 1987). Despite a 2% recovery in 1988, there had been no substantial development in the four years leading up to the end of apartheid. In March 1989, the nation officially entered a recession, which persisted until 1992. However, there was some degree of moderation before the economy stabilized in early 1993 (South African Reserve Bank 1993). The relationship between GFC and economic growth has been an issue of concern. In the 1980s, GFCF increases were not supporting economic growth steadily. In 1985, GFC increased by 7.5%, while economic growth decreased by 3.5%. From 1987 to 1990, GFC and the economy fell. In 1988 to 1989, an increase in GFC allowed for economic growth. In 1990 to 1993, however, GFC and the economy fell. Interestingly, economic growth increased in 1999 and 2004 with a falling GFC. After 2004, economic growth in most cases fell with increasing GFC, except in 2018, where it stayed constant with a GFC increase.

The connection between economic growth and key sectors in South Africa portrays a complicated picture. The manufacturing, mining and quarrying, and water sectors each provide a unique contribution, with their performance influencing the overall trajectory. While economic growth has fluctuated in recent years, gross fixed capital formation (GFCF) in these sectors has also been uneven. Manufacturing, for example, has displayed signs of stagnation, with GFCF unable to keep up with anticipated expansion. Mining and quarrying, on the other hand, has seen a decrease in GFCF due to both resource restrictions and worldwide market changes. Energy sectors such as electricity, gas, and water likewise present a mixed bag, with infrastructural investments being offset by operational issues. South Africa's economic trajectory from 1978 to 2022 has been shaped by apartheid-era policies, post-apartheid reparations, and global economic pressures. Apartheid led to racial segregation, economic imbalance, and inward-focused policies, resulting in infrastructure development and skilled labor pools but entrenching inequality. Post-apartheid, the Reconstruction and Development Programme aimed to address historical injustices but faced obstacles like fiscal limits, corruption, and HIV/AIDS. Economic development remained slow, particularly among black South Africans. The 20th century saw attempts at economic change through initiatives like Black Economic Empowerment, but these have been criticized for enriching a small elite and failing to address structural inequality. To achieve sustainable growth, the government must combat inequality, improve governance, and build a more dynamic and competitive economy.

This article analyzes the period of 1980–2022 in South Africa to determine the impact gross fixed capital formation has on economic growth. Other related ideas and their potential influence on the outcome are not explored in this research, nor are events that occurred outside of this time frame. However, the findings from this study can be utilized as a guide for the government's new ideas and contribute to the ongoing discussion in emerging countries about the relationship between gross fixed capital formation and economic growth. This study offers insightful information about the tactics that can accelerate South Africa's growth trajectory, promoting wise choices that alleviate economic inequalities and improve the general welfare of its people.

### *Recommendation*

The South African government and policy stakeholders have a lot of things to take into consideration considering this study's findings in order to promote the nation's economic growth:

1. This study suggests that the South African government and the Reserve Bank should increase public infrastructure investment and funding for research and development

to stimulate economic growth. Additionally, the bank should direct investments in programs or infrastructure and lower interest rates to make borrowing more affordable for companies, despite the weak association between manufacturing investment and economic development.

2. The South African Reserve Bank should consider easing capital adequacy requirements to allow banks to lend more money to the mining and quarrying industry, as there is no correlation between investment in these industries and economic growth. The government and central bank should employ a multifaceted strategy, including tax cuts, loan guarantees, and regulatory environments, to encourage private investment and direct investment in public infrastructure projects, such as renewable energy and water treatment facilities.
3. Encouraging public–private partnerships (PPPs) can reduce government risk and utilize private sector resources. Increasing regulations' predictability and clarity boosts investor confidence and attracts money to industries like gas, water, and electricity. South Africa can harness its potential through these policies, fostering economic expansion and a prosperous future. Diversifying investments across sectors, like renewable energy, technology, and advanced manufacturing, can mitigate the risks associated with overdependence on mining or manufacturing, promoting a future resilient economy for sustainable growth.
4. South Africa needs policies to create an investment environment, such as regulatory improvements, fiscal incentives, and public–private partnerships, to attract investment in sectors like mining and quarrying. This will boost economic growth and job creation. Structural policies should address manufacturing sector challenges and enhance competitiveness and innovation to contribute to sustainable growth and job creation. Modernizing the sector and improving its productivity and access to domestic and international markets is also crucial.
5. Policymakers should focus on infrastructure development, regulatory reforms, private sector investment attractiveness, and state-related enterprise efficiency to improve service delivery, productivity, and overall economic performance. When the economy is heading towards a recession, countercyclical investment policies can stabilize the economy by investing in high-multiplier projects. Holistic reviews of economic indicators, including business confidence, structural barriers to growth, and external economic factors, should be undertaken to formulate realistic policy responses. This comprehensive analysis can help identify possible policy interventions to guarantee sustainable growth and development. By doing so, policymakers can ensure sustainable growth and development.
6. Policies should balance capital formation across relevant sectors, promoting growth for emerging sectors with high potential. Encouraging investments in renewable energy and advanced manufacturing can sustain economic activity and reduce overdependence on traditional sectors. Additionally, exploring industrial policy improvements that emphasize productivity, innovation, and market access can bolster industrial growth and economic development both domestically and internationally.

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